LETTERS TO THE EDITORS

Regarding "Emergency repair of thoracoabdominal aortic aneurysms: a word of caution on the numerical analysis of the results"

To the Editor:

We read with interest the article by Velazquez and associates[1] on the clinical outcome of emergently repaired thoracoabdominal aortic aneurysms (TAAAs) and the related stimulating discussion that followed on the results presenting mortality and morbidity rates that approach those of elective presentations.

Our unit is directly involved in this surgical challenge, and recently we have published our results demonstrating an in-hospital mortality of 42.1% and a 6-year actuarial survival of 48%.[2] The percentage of mortality in the subgroups of aneurysms was 26.3% in type I TAAAs, 5.3% in types II and III, and 15.8% in type IV,[2] according to the Crawford classification system.

In any case we would like to question some sentences that appeared in your journal.

First of all we believe, as already outlined by Dr Cambria and Dr O'Donnell in the discussion of the manuscript,[1] that the mortality is low, especially considering the characteristics of this critically ill group of patients. We are firmly persuaded that indications to perform emergency repair of TAAAs are the suspected or true ruptured aneurysm (almost always presenting hemodynamic instability) or a dissected aneurysm causing partial or total obstruction of the aortic true lumen with consequent organ or limb ischemia. Consequently the mortality rate in the Velazquez's subgroup analysis (50% in emergent type II TAAAs and 67% in free rupture) must be considered more reasonable so the term "emergent" could be correctly revised. Moreover the authors have compared the groups operated in election and emergently, evaluating only the demographic data such as sex and age and so demonstrating in their conclusion that mortality and morbidity rates are similar. On the contrary, this comparison seems hazardous to us with regard to the predictable different preoperative status between a patient with an aneurysm and a patient with a ruptured or dissected aneurysm. In other words, the nine patients with pain and a tender aneurysm without evidence of free rupture, perhaps, could be included in a group of patients with a programmed operation but not in an "emergent group." In fact morbidity and mortality rates in emergency repair of TAAAs as high as 50% have been clearly presented by others.[3,4]

With regard to the predictive factors for hospital mortality, our experience, although in a small number of patients,[2] shows that aortic dissection and the need for hemodialysis significantly influence early results.

The last comment is related to the use of single or combined techniques to preserve organ function. We believe that the cerebrospinal fluid drainage, the reattachment of intercostal and lumbar arteries when feasible, and the distal perfusion (femoral-femoral or left atrium to femoral artery bypasses) are safe and effective and may play a central role in the prevention of neurologic or visceral injuries.

In conclusion, we are grateful to Velazquez and coworkers because their article stimulates the discussion and supplies to us a very interesting piece of information.

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REFERENCES

1. Velazquez OC, Bavaria JE, Pochettino A, Carpenter JP. Emergency repair of thoracoabdominal aortic aneurysms with immediate presentation. J Vasc Surg 1999;30:996-1003.
2. Mastroroberto P, Chello M. Emergency thoracoabdominal aortic anuerysm repair: clinical outcome. J Thorac Cardiovasc Surg 1999;118:477-82.
3. Svensson LG, Crawford ES, Hess KR, Coselli JS, Safi HJ. Experience with 1509 patients undergoing thoracoabdominal aortic operations. J Vasc Surg 1993;17:501-4.
4. Crawford ES, Crawford JL, Safi HJ, Coselli JS, Hess KR, Brooks B, et al. Thoracoabdominal aortic aneurysms: preoperative and intraoperative factors determining immediate and long-term results of operations in 605 patients. J Vasc Surg 1986;3:389-404.

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Reply

We would like to thank Dr Mastroroberto and colleagues for their comments and discussion on our recent manuscript on the emergency repair of thoracoabdominal aortic aneurysm with immediate presentation. In general, the authors are in agreement with the presented analysis and insightful comments. We would like to add that the limitation of a retrospective design and a modest sample size are commonly encountered in human clinical studies. However, when properly performed, such study designs can further advance the knowledge in important patient care topics.

In summary, we feel that our methods, data, and conclusions are valid and will result in a further understanding of the subject studied. While prior authors have focused on dismal or futile outcomes in ruptured thoracoabdominal aortic aneurysms, we have recognized that when the individual patient presents with any of the acute immediate presentations studied in this work, it may be

difficult for the surgeon, patient, and family to come to a consensus of prognosis and desired treatment without knowledge of intraoperative findings. That is why we have chosen not to compare "ruptured versus non-ruptured" but rather "emergency, immediate, or acute presentations versus elective presentations." The overall prognosticating benefit of this analysis may be useful to doctor and patient in reaching an informed decision, in all types of acute presentations, even before reaching the operating room and determining for certain whether free-rupture has occurred.

This study has shown that not all of the emergency presentations in thoracoabdominal aortic aneurysms have a dismal outcome. Similarly a surgical or anesthetic team may question whether the time and effort devoted to the use of adjunctive techniques may be a wise maneuver in the setting of an emergency, immediate, or acute presentation. Our data indicate that in fact such maneuvers may favorably affect survival.

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BOOKS RECEIVED

The receipt of the books listed below is acknowledged. This listing is regarded as appropriate return for the courtesy of the sender. The books that are of particular interest will be reviewed and the review published as space permits.

Trauma, 4th ed
Kenneth Mattox, David Feliciano, Ernest Moore; New York; 2000; McGraw-Hill; 1514 pages; $185.00.

Modern vascular surgery
James Yao, William Pearce; New York; 2000; McGraw-Hill; 462 pages; $160.00.

The arterial circulation: physical principles and clinical applications
John K-J. Li; Totowa; 2000; Humana Press; 271 pages; $125.00.

Dorland's illustrated medical dictionary, 29th ed
Philadelphia; 2000; W. B. Saunders; 864 pages; $46.95.

Surgery of the aorta and its branches
Bruce Gewertz; Philadelphia; 2000; W. B. Saunders; 495 pages; $165.00.

Clinical cardiac pacing and defibrillation, 2nd ed
Kenneth Ellenbogen, G. Neal Kay, Bruce Wilkoff; Philadelphia; 2000; W. B. Saunders; 1026 pages; $225.00.

Medicine meets virtual reality 2000: envisioning healing: interactive technology and the patient-practitioner dialogue
James Westwood, Helene Hoffman, Greg Mogel, Richard Robb, Don Stredney; Amsterdam; 2000; IOS Press; 402 pages.

Textbook of endovascular procedures
John Dyet, Duncan Ettles, Anthony Nicholson, Samuel Eric Wilson; New York; 2000; Churchill Livingstone; 501 pages.

Plasma lipids and their role in disease
Philip Barter, Kerry-Anne Rye; Amsterdam; 1999; Harwood; 352 pages; $120.00.

Writing and publishing in medicine, 3rd ed
Edward J. Huth; Baltimore; 1999; Williams & Wilkins; 348 pages.

Low molecular weight heparin therapy: an evaluation of clinical trials evidence
Monique Sarret, Andre Kher, Francis Toulemonde; New York; 1999; Marcel Dekker; 474 pages; $165.00.